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# alice haynes

## about

Creative and conscientious in my work, I am looking to apply my dynamic mathematical and artistic abilities to develop novel solutions and designs within a socially conscious, actively sustainable company. I thrive as part of a varied, enthusiastic team and believe that engaging and lasting creations result from having an inter-disciplinary approach that integrates science, art and culture.

## education

University of Bristol, UK

2012 - 2016

**Masters of Engineering in Engineering Mathematics, First Class Honours, Top of cohort**

A unique course combining abstract and applied mathematics, programming skills, physics, sustainability and AI.

Self proposed dissertation: "Feel The Music" - Designed and created a tactile interface that generated musical experiences via sensory substitution for those with hearing impairments.

Modelling group projects: Modelling real-world situations and problems then presenting our system models and solutions through technical reports and presentations. Worked with 12 different teams on a range of projects from analysing the resilience of the London Underground to proposing an automatic system for unmanned gliders to detect air thermals.

Alton College, UK

2010 - 2012

A-levels: Art & Design A\*, Mathematics A\*, Further Mathematics A\*, Physics A\*

First in the UK for UKMT Team Maths Challenge, a nationwide competition, our team progressed to the EU finals in Italy.

## previous

Human-Robot Interaction Internship

2014

Used Motion Capture technology (Qualisys) to investigate how kinetic robots should indicate their intended motion to humans in their physical vicinity. Funded by EPSRC in collaboration with Bristol Psychology and Engineering departments.

Quadruped Robot Scholarship

2015

Designed and fabricated a four-legged robot with an innovative gear system to replicate the four natural gaits of horses with one system. Funded by a Scholarship of Academic Achievement awarded to me by the University of Bristol.

Lloyds Banking Group Scholar Programme

2012 - 2016

The Lloyds Scholarship is a competitive programme supporting students at top UK Universities. It included two paid internships, multiple skills based workshops and 400 hours of volunteering in the local community.

Portfolio Management Intern, London

2012

Assisted the Portfolio Management team in Lloyds HQ for the first of two summer placements. Developed a new proposal system to assess portfolios and direct them to the correct team.

SME Scotland Intern, Edinburgh

2015

Worked with local businesses as part of SME Scotland. Built positive client relationships, learnt credit proposal processes, organised events and owned projects to improve colleague engagement and management systems.

## volunteering

Oxfam Steward at Boomtown and Bestival

2014

Two major UK music festivals. Role required excellent people skills, patience and the ability to solve problems in high-stress situations. Challenges included medical emergencies and managing disruptive crowds.

Food Cooperative Committee Member

2013 - present

A non-profit weekly stall selling fair-trade and organic produce at wholesale prices. Role included manning the stall and organising stock. During my time in the team our efforts in making ethical and healthy food available and affordable were acknowledged by a Bristol Green Volunteering Award.

Festival of Nature Volunteer

2014, 2016

A family focused festival to raise awareness of nature and the environment. Roles included aiding stallholders, guiding festival goers and supervising the children's tent activities, engaging them in sustainability.

Jolidays Volunteer

2012 - 2014

A Bristol based charity helping children and young adults that are full time carers for parents or relatives. Role comprised of supervising the children on weekend and day trips, responsible for their happiness and safety.

Conservation Volunteer

2013 - 2014

A group aimed at improving natural areas and raising awareness of conservation in local regions, both inside and outside the city. Role included re-modelling areas to encourage biodiversity and engaging the community.

Student Robotics Assistant

2013 - 2014

A scheme across UK schools enabling teams to create robots for a nationwide competition, the aim being to encourage young adults to engage in Engineering. Role was to facilitate a local Bristol team with their build.

Bursledon Brickworks Volunteer

2011 - present

A volunteer-run museum within a brickworks. Role includes assisting in the cafe or the children's pottery class during Open Days.

TEDxBristol Volunteer

2015

A local TED event showcasing inspiring projects by people and companies in Bristol. Role included assisting speakers and guiding guests.

## interests

An insatiable appetite for new experiences has lead me to have co-hosted a radio show, designed and built a play set, performed in an amateur dramatics group and played in the University's female Canoe Polo team. I love any outdoor activities such as climbing, swimming or cycling that get me out of the city and connecting with nature as well as building physical connections with people through dance (currently Cuban salsa and ballet) and acro yoga.

In my spare time I satisfy my interest in all forms of creative expression through live music, films, talks and exhibitions, as well as exploring my own capabilities, predominantly as a painter and artist.